Appendix B

Quality Management Plan
for
Planning

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Changes to this document require the concurrence of the PD Branch Chiefs and approval by the Acting Chief, PD, and shall only be made following the procedures described herein.

CONTENTS

APPENDICES

1.0 PURPOSE

This Quality Management Plan (QMP) for Planning defines the responsibilities and procedures for managing the quality of services and products provided by the Sacramento District (SPK) Planning Division (PD) through in-house (I-H) staff and contractors. This is Appendix B of the SPK QMP, which may be referred to for further guidance. The activities discussed in this QMP are consistent with the references in Section 3.0, as well as other references in the SPK QMP.

2.0 SCOPE

This QMP applies to studies and projects and will be followed for services and products, whether provided by PD I-H staff or by a contractor. This QMP applies directly to PD personnel. PD will regularly review and update this QMP to ensure that it reflects current Corps regulations, policies, and guidelines, as well as responds to the changing needs of SPK's clients.

3.0 REFERENCES

      a. ER 5-1-11, Program and Project Management, dated 27 February 1998.

      b. ER [pending], Quality Management, dated 1 December 1999 [draft].

      c. CESPD R 1110-1-8, Quality Management Plan, dated 14 December 1998.

      d. ER 1105-2-100, Guidance for Conducting Civil Works Planning Studies, dated 28 December 1990, as revised.

4.0 DEFINITIONS

Client - The owner, customer, local sponsor, user, or beneficiary of a PD service or product.

Independent Technical Review (ITR) - A review by a qualified person or team not involved with the development or supervision of a project. The purpose of the review is to confirm the proper application of clearly established criteria, regulations, laws, policies, guidelines, and procedures.

PD Personnel - PD I-H staff and contractors performing services under contract to PD.

Product Delivery Team (PDT) - An interdisciplinary group formed to develop and deliver a product.

Project Management Plan (PMP) - The detailed, specific plan used to manage and control the delivery of a project from its inception to completion. A full definition of a PMP is included in ER 5-1-11.

Project Manager (PM) - A member of the PDT. The PM is responsible for the oversight and execution of a project to meet client needs. The PM in concert with PDT has the responsibility for the development of the PMP, which includes the project QCP prepared by PD personnel.

Quality - The work "quality" has two major meanings and is usually defined by the client and Corps regulations, policies, and guidelines: (1) those product features which respond to client needs and (2) freedom from deficiencies.

Quality Assurance (QA) - Activities taken to ensure the overall effectiveness of the quality control process, consistent with regulations, laws, policies, guidelines, and procedures.

Quality Control (QC) - Activities taken to ensure quality verification for each discipline. QC includes such activities as review of assumptions, checks on methodology and calculations, adequacy and completeness of information, and compliance with regulations, laws, policies, guidelines, and procedures.

Quality Control Plan (QCP) - The QCP is a management plan for executing a quality service or product on schedule and within budget. The QCP details the documents and products to be reviewed, ITR Team and its responsibilities, schedule and costs for reviews, client needs, and regulations, policies, and guidelines for development of the study or project.

5.0 POLICY

The policy of PD is to consistently provide high quality planning services and products on schedule and within budget, consistent with regulations, policies, guidelines, procedures, and client needs. The direction offered in this QMP will ensure that we achieve this goal. PD is accountable and responsible for all services and products provided by PD, whether produced by PD I-H staff or contractors. Technical Branch/Section Chiefs and other personnel involved in the planning, checking, and/or review process during development of PD products are responsible for adhering to the requirements of this QMP. Attention is required by PD personnel to recognize applicable lessons learned and to see that these are incorporated into the process.

6.0 QUALITY MANAGEMENT

6.1 Study Initiation and Management. The PM is responsible for accepting a new study or project into SPK. Technical Branch/Section Chiefs are responsible for assigning team members to the PDT initiated by the PM. PD personnel will participate and cooperate fully in the development and execution of Scopes of Service, schedules, and resource plans, as well as coordinate regularly with their PD Technical Branch/Section Chiefs.

6.1.1 Client Needs. The PM is responsible for the overall execution of a project to meet client needs. As such, the PM is a point of contact for the client and the PDT on issues related to project schedule and budget. PD PDT members will be points of contact for planning issues related to their areas of expertise.

6.1.2 Resource Selection.   In consultation with the client, the PM, PD Technical Branch/Sections Chief, and PD PDT members will jointly decide how planning aspects of the study or project will be accomplished to best serve all concerns. PD I-H staff, other Corps personnel, and/or contractors may be used depending on current workloads, funding, and schedules.

6.1.3 Task Assignment.   In coordination with the PDT and the Technical Branch/Section Chiefs, the PM will develop a written Scope of Service which describes the tasks for each PDT member. PD personnel will be responsible for preparing draft and final decision documents, and supporting plan formulation, economic, and environmental information. PD personnel will also participate in the review of subsequent engineering, construction, and operation and maintenance services, products, and activities, including design memoranda, plans and specifications, and construction, to ensure plan formulation, environmental, and cultural resources adequacy and compliance.

6.1.4 Schedule. The PM establishes and maintains project schedules on Microsoft Project. Schedules are updated as changes occur to ensure that critical milestones and forecast dates are met. PD personnel will participate fully in all aspects of schedule negotiations, and will ensure that schedule changes are coordinated with the PM, PD Technical Branch/Section Chiefs, and PDT.

6.1.5 Budget. The PM manages the project budget within Federal funding and the client's target budget. The PM coordinates and negotiates costs with PD I-H staff, and as applicable, contractors associated with the production of planning products. PD personnel will provide budget estimates for planning services and products to the PM in a timely manner, manage PD budgets within agreed-to limits, and inform the PM and PD Technical Branch/Section Chiefs immediately of potential budget problems.

6.1.6 Quality Plans

6.1.6.1 Quality Control Plan.   PD personnel will prepare a QCP for a planning service or product conducted by PD. The QCP will be updated, as needed, and reviewed annually. A comprehensive QCP will be prepared for larger, complex studies and projects. **Appendix B-A** is a sample format for a QCP for a large study or project. The QCP for small studies or projects under the Continuing Authorities Program will be a simpler document, setting forth the schedule and a minimum of coordination information. **Appendix B-B** is a sample format for a small study or project QCP. After review by the Technical Section/Branch Chief, the QCP will be submitted to the Chief, Planning Division, for review/approval prior to initiation of the planning work. The PD PDT member will then submit the QCP to the PM for review and incorporation into the PMP. Proper documentation and QC certification will be included in the District files.

6.1.6.2 Quality Assurance Plan. A QAP will be prepared for a planning service or product completed by contract. PD I-H staff will have a system in place to assure themselves that the contractor's QCP is being implemented and followed through each phase of the planning process. These activities may include phone calls to the contractor to verify scheduled QC functions, visits to the contractor's office, and/or requesting copies of the contractor's QC worksheets. The QAP will address these activities and verify that the QCP has been carried out.

6.2 Planning Process and Product Verification

6.2.1 Peer Review/Checking. Independent spot-checking and review of assumptions, analyses, and calculations may be performed, as needed, throughout the planning process. This effort is best conducted by experienced peers within the same discipline who are not directly involved with the development of the study or project being reviewed.

6.2.2 Senior Personnel Overview. Senior personnel including PD Technical Branch/Sections Chiefs will be responsible for ensuring that PD personnel are trained, competent, and sufficiently experienced to provide a high level of competence for their discipline's contribution to each PDT. PD PDT members may consult with senior personnel throughout the planning process to discuss major assumptions, analyses, and calculations to avoid conflicts that could adversely affect project schedules and costs. Senior personnel may also review the written products of PD PDT members prior to their release to the PDT leader.

6.2.3 Seamless Review. PD PDT members may consult with their ITR Team counterparts at appropriate points throughout the planning work to discuss major assumptions, analyses, and calculations to avoid significant comments later that could adversely affect project schedules and costs. The discussion may be documented in a memo and copies retained by each participant. However, these discussions will not preclude ITR Team members from making formal comments once the entire document is distributed for ITR. At the request of the PM, the ITR Team Leader may attend PDT meetings in an advisory role concerning ITR issues; however, the ITR Team Leader does not participate as a member of the PDT.

6.2.4 Product Delivery Team Coordination. The PDT will conduct a detailed interdisciplinary review after the senior personnel overviews. During this review, individual PDT members will check for discrepancies, both within their work and between their work and the work prepared by other PDT members. The goal is to eliminate errors and conflicts within the various portions of planning documents. The PDT will be responsible for developing a well integrated and technically sound plan that meets the Corps requirements and client's needs according to governing regulations, laws, and policies.

6.2.5 Independent Technical Review. The ITR responsibilities and process are summarized below.

6.2.5.1 ITR Responsibilities

1) PD Chief.   The PD Chief will serve as the Technical Division Chief (also called Functional Chief), who will be responsible for ensuring and certifying the technical quality of PD products. Specific responsibilities of the PD Chief include the approval of QCP's and QC's for planning products. At the discretion of the PD Chief, chiefs of functional branch/sections such as plan formulation, environmental resources, and economics may also be considered functional chiefs for the processes in Appendix C of Reference 1c.

2) PD Technical Branch/Section Chief. The PD Technical Branch/Section Chief will be responsible for supporting the PM by assigning PD PDT members, obtaining contractors, reviewing and managing the work of PD PDT members, selecting ITR Team members, and ensuring adequate ITR and QC.

3) PD ITR Committee. The PD ITR Committee will be made up of the Technical Branch/Section Chiefs, who will be responsible for determining PD ITR assignments and developing cost estimates for review efforts. These assignments and costs will be coordinated with the PD PDT members, and the PM. The PD ITR Committee will also be responsible for reviewing, updating, and maintaining the PD's QMP. **Appendix B-C** is a detailed discussion of the function and responsibilities of the PD ITR Committee.

4) ITR Team/ITR Team Leader. The ITR Team is responsible for performing a detailed independent review of all aspects of the document, including completeness, accuracy, consistency, and compliance. The ITR Team Leader is responsible for chairing ITR Team meetings and for providing leadership and coordination within and among all disciplines. In addition, the ITR Team Leader will minimize redundancy among ITR Team comments and consolidate them into a comment memorandum for the PDT.

5) PM. The PM is responsible for ensuring that the ITR Team has adequate time and funds to complete their review, coordination, and assistance in resolving issues, if necessary.

6.2.5.2 ITR Process. The main activities of the ITR process are summarized below and detailed in **Appendix B-D**.

1) Selection of ITR Team/ITR Team Leader. Selection of ITR Team members is made by the Technical Branch/Section Chiefs of the various SPK elements including Plan Formulation, Environmental Resources, Economics, Civil Design, Hydrology, Hydraulics, Geotechnical, Real Estate, Counsel, and others. ITR Team members are senior experienced personnel, and one member is selected by the team as the ITR Team Leader. If sufficient resources are not available in SPK, the Technical Branch/Section Chief s may supplement SPK personnel by negotiating support with temporary personnel from other Corps facilities, project sponsors, or contractors.

2) Initial ITR Strategy Session. The ITR Team Leader will coordinate an initial strategy session to discuss the review process, identify the products to be reviewed, establish review time, and identify potential major policy or technical issues. In addition to ITR Team members, other attendees may include Technical Branch/Section Chiefs and SPD personnel.

3) Distribution/Review of Document. Upon completion of the document, the PDT Leader will forward copies of the document to the ITR Team Leader, who distributes them to the ITR Team members. These members not only will be expected to review the entire document, but will also concentrate on those parts of the document requiring their area of expertise. The main large, complex documents include reconnaissance, feasibility, and reevaluation reports. **Appendix B-E** includes review guidelines for these larger documents. The smaller documents include ecosystem restoration reports and definite project reports. **Appendix B-F** includes review guidelines for these smaller documents. **Appendix B-G** is a sample review checklist for both types of documents. After individual ITR Team members have completed their reviews, they will provide written comments to the ITR Team Leader.

4) Compilation/Response to ITR Comments. The ITR Team will meet and assist the ITR Team Leader in converting the individual comments into an assessment (comment memorandum) of the document. This assessment will raise any technical issues and questions concerning the document and will make suggestions for modifications. The PDT will provide written responses to the ITR comments and modify the document accordingly. Review comments will be retained in SPK files for use in back checking comments and lessons learned applications.

5) Resolution of Outstanding ITR Issues. The ITR Team Leader will review the comments and responses to identify any disagreements between members of the PDT and the ITR Team. Any disagreements which cannot be resolved informally will be forwarded to the responsible Technical Division Chief, who will first attempt to facilitate resolution. If unsuccessful, he/she will then make a decision on the issue. Major unresolved disagreements may be forwarded to higher authorities for resolution, if necessary.

6.2.6 Certification. The District Commander and Chief of Planning Division will certify that the QC process for each document has been completed and that all identified ITR technical issues have been resolved. The PM will file the signed QC certificate and enclosed review documentation. **Appendix B-H** is a sample format of the QC certificate.

7.0 CORRECTIVE AND PREVENTATIVE ACTION

7.1 Lessons Learned Program. Attention is required by PD personnel to recognize applicable lessons learned and informally incorporate these lessons into their future planning work. In addition, lessons learned need to be shared with other PD personnel in order to improve the planning process and PD products.   To do this, a lessons learned memorandum will be prepared by the PDT after the QC certificate is signed. This memorandum will discuss the unanticipated problems that arose during a study or project, subsequent resolution of these problems, and ways to avoid similar problems on future studies. This memo will be made available to PD I-H staff involved in similar studies and projects.

7.2 Contractor Performance Evaluation. Standard contractor evaluation forms will be prepared at the completion of the contracts. Interim evaluations will be provided when the contractor is not performing at the level of quality required. The interim evaluation can be handled by a written evaluation and/or a face-to-face meeting between PD I-H staff, contractor, and other PDT members, as appropriate. Final evaluations will be reviewed by the Chief of Planning Division and made available to PD I-H staff for their information.

8.0 PLANNING QUALITY TOOLS

PD will continue to use proven planning tools and to strive for developing and/or implementing new planning quality tools. Some of these tools include:

8.1 ER 1105-2-100

ER 1105-2-1105 provides guidance specific to Corps planning activities. PD personnel will use this ER as their basic guide to organize and conduct planning studies and related programs. Use of the ER by all PD personnel will maintain proper and consistent planning, and ensure quality in planning services and products.

8.2 Site Visits

PD personnel are encouraged to visit study areas and project sites early in the planning process.   Additional site visits by PD personnel may also be made to ensure a clear understanding of the site conditions and to ensure that the site does not change significantly during the planning process.

8.3 Training

Senior personnel including PD Technical Branch/Section Chiefs will ensure that PD PDT members are trained to perform their assigned duties, including awareness and implementation of the QC process.

8.4 Checklists

QC checklists can be helpful to planners and reviewers to ensure that appropriate planning considerations are systematically addressed. QC checklists may be developed and used during the planning and review processes. Once developed, checklists need to be continually revised as needed by changing policies and requirements, but must never become a substitute for professional judgement and experience. Checklists are not intended to be comprehensive and should be modified to fit specific requirements of each discipline.

9.0 RECORDS

The following records will be kept in the study and project files maintained by the PD.

      a.   QCP's and revisions

      b.   ITR Team comments

      c.   PDT responses to ITR comments

      d.   QC certifications

      e.   Lessons learned memoranda

      f.   Contractor performance evaluations